

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450**

Appl No.: **10/535,613**
Applicant: **Henry Kister**
Filing Date: **January 12, 2006**
Art Unit: **1797**
Examiner: **Manoharan, Virginia**
Attorney Docket No.: **100325.0164US**

Title **Improved Distillation Systems**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

Sir:

This paper responds to the Office Action dated December 8, 2009. Please enter the amendments shown herein.

- Claim amendments begin on page 2.
- Remarks begin on page 4.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1-10. (canceled)

11. (previously presented) A method of operating a plant comprising:
providing a divided wall column that has a partition and comprising a separation section on a feed side that receives a feed comprising at least a first component, a second component, and a third component, wherein the partition separates the feed side from a side product side;
separating the feed in the separation section on the feed side into a vapor that comprises the first and the second component, and a liquid that comprises the second and the third component;
coupling a differential vapor pressure cell to the divided wall column at a level below a point where the feed enters the divided wall column on the feed side; and
measuring a concentration of the first component at the level below the point where the feed enters the column using the differential vapor pressure cell.
12. (Original) The method according to claim 11 wherein the differential vapor pressure cell is positioned on the feed side at a level below a point where the feed enters the column on the feed side and above a lower end of the partition.
13. (Original) The method according to claim 11 wherein the differential vapor pressure cell is positioned at a level that is identical or below the lower end of the partition.
14. (Original) The method according to claim 11 wherein the differential vapor pressure cell comprises a reference substance that has a vapor pressure that is substantially identical to a predetermined vapor pressure of the feed at a location where the differential vapor pressure cell is disposed.
15. (Original) The method according to claim 14 further comprising a control element that receives a signal from the differential vapor pressure cell, wherein the control element regulates a process parameter in the divided wall column.

16. (Original) The method of claim 15 wherein the process parameter is temperature.
17. (Original) The method of claim 15 wherein the control element regulates the process parameter when about 0.02%(mol) to about 5%(mol) of the first component is present at the location where the differential vapor pressure cell is positioned.
18. (Original) The method of claim 17 wherein the feed comprises a hydrocarbonaceous feed.
19. (Original) The method of claim 18 wherein the first component comprises a C₄-fraction, the second component comprises a C₅-fraction and the third component comprises a C₆-fraction.
20. (Original) The method of claim 11 wherein the divided wall column further comprises a second separation section and a third separation section, wherein the second separation section receives the vapor that comprises the first and the second component and wherein the third separation section receives the liquid that comprises the second and the third component.

REMARKS/ARGUMENTS

35 USC § 103

Claims 1-10 were rejected under 35 USC § 103(a) as being obvious over Steacy (U.S. Pat. No. 6,558,515) with or without Shinsky (U.S. Pat. No. 4,358,346). The applicant respectfully disagrees. Nevertheless, the applicant canceled claims 1-10 to advance the matter to issuance.

Allowable subject matter

Claims 11-20 were deemed allowable. The applicant agrees. Claims 11-20 remain unchanged.

Request For Allowance

Claims 1-20 are pending in this application. The applicant requests allowance of all pending claims.

Respectfully submitted,
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Date: 12/16/2009

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